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ABSTRACT

The opinions of 89 educators in Utah on learner needs and the potential for using technology to meet these needs were gathered through a two-stage process of telephone interviews and written questionnaires. Persons included in the sample were the state's 40 district supervisors plus a sample of "key informants" identified by previous experience with technology projects. A list of the critical student learner needs based on telephone interview responses was developed, and responses to other telephone interview questions were summarized. In particular, the assessment teams noticed a polarization of opinion over the usefulness of educational technology in general. The written questionnaire requested that respondents rate each item on performance or importance and then choose the eight most critical needs for immediate attention. A listing of these immediate needs was compared with the rankings of the critical needs identified by the telephone survey. The third analysis performed was a means difference test of the item's rating of performance from the mean rating of importance. Finally, a Spearman rank correlation was done of the rankings obtained in the study. Analysis of the data provided a list of 14 learner needs which merit attention by Utah technology projects, and nine recommendations for technological interventions are made by the assessment team. Two appendixes provide notable responses from the telephone survey and some results of the data analyses, as well as copies of the survey instruments. (EW)

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An Assessment of Learner Needs Within the Framework of Technological Innovation in Utah

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WASATCH INSTITUTE
FOR RESEARCH AND EVALUATION

An Assessment of Learner Needs within the Framework of Technological Innovation in Utah

For the

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ABSTRACT

This report studies learner needs in the State of Utah, many with potential for technological applications projects. Design and planning of the study occurred in May 1986, with data gathered in August and September.

The opinions of 89 educators were tapped in a two-stage process: first telephone interviews and second with a written questionnaire. Persons sampled included all of the states's forty district superintendents, plus a sample of "key informants" identified by previous experience with technology projects.

Three rankings of critical needs were obtained, the primary one from the respondents' direct identification of the most critical items for attention now. Preliminary findings from the telephone survey, as well as a measure of discrepancy between schools performance and perceived importance, were used to corroborate the rankings.

Top ranked areas of need were as fcllows:

1. Provide competence in writing skills, grammar, and spelling.
2. Develop skills in problem solving.
3. Develop thinking and analysis skills.
4. Develop skills in reading comprehension, performance at grade norm, etc.
5. Develop positive self esteem.

In no case were respondents satisfied that the potential for solution by technology had come anywhere close to having been met.

From the telephone interviews, a number of concerns about technology emerged. The first was a rather dramatic polarization over the potential benefit of technology, with adamant proponents and opponents.

A second set of concerns dealt with wisdom in the use of technology: to insure that humane interaction of teachers with students is boosted rather then reduced; to prepare teachers to perform adequately with the new systems, rather than being left to "sink or swim;" and to see that ongoing functions such as maintenance and program scheduling are considered in long term planning.

Introduction

In recent years, the Utah State Office of Education has funded a number of technology projects with the intent of improving the quality and richness of offerings in education. Major approaches used have included instructional television, satellite transmission, and two way audio instruction enhanced with electronic blackboard or computer-generated display.

While these projects, some spanning several school districts, had been evaluated individually, they had not been viewed collectively. This study is one part of an overall study by the Wasatch Institute for Research and Evaluation (WIRE) to examine the present impact and potential direction for these projects. This report involves an assessment of educational needs not currently being met with technology.

Problem

Technology to some has become "the answer" to many of the problems in dispensing educational information. As a result of new technological applications, questions arise as to whether the interventions are providing a solution to specific learner needs. It is the purpose of this study to assess the most important learner needs and in addition, to suggest future targets for technology projects and new areas of study.

Identified needs will be used by technological experts to determine the suitability of various technologies for implementation.

Rationale for Assessing Needs

A two step process was selected for conducting the needs assessment. Step one involved a telephone interview survey; step two used a written survey instrument sent to the same group of participants.

The rationale for the two step strategy was three fold: (1) to identify major needs verbally; (2) to obtain specific data for correlation of results; and (3) to increase the rate of response of the written instrument.

The sample was selected in consultation with two experts from the State Office of Education School and Community Development, Drs. Michael Garbett and Don Richards. The sample was selected, based on knowledge of the individual, using a "Key Informant" assessment strategy. The sample of key informants included all forty school superintendents, selected specialists at the State Office, some "technology" experts from the state public schools, teachers, and local school administrators.

Initially, it was not known what needs would be tested or rated. A pool of concerns had to be gathered in order to create a questionnaire that would meet the requirements of the study. A single interviewer was employed to call members of the selected sample.

The interviewer was given a set of questions to be used in deriving a set of concerns. (see Appendix B for instrument) The questions asked were; "What do you believe is the greatest learner

need in the public schools?" "What major needs are not being met with technology?" And, "What other concerns do you have that we haven't discussed?"

Respondents of the phone interview were informed that their responses would be recorded and used to build a pool of needs.

The interviewer pilot tested the phone interview instrument with six people and made necessary refinements prior to its use.

Once the phone interviews were completed, the data gathered were evaluated and a survey instrument created.

The next step of the needs assessment was to pilot test the survey instrument. If refinements were required, they would be made, prior to the mailing of the survey with return envelopes to the members of the key informant sample.

The survey instrument consisted of learner needs gathered from the phone survey. The key informants would then be asked to respond by ranking the level of the student needs on a scale of 1 to 5.

The assessment team choose not to use a multiple response questionnaire format. Instead, in order to obtain ratings of performance and importance, the survey sample was divided randomly in half. One group would evaluate performance (what is) and the other group would rate importance (what should be). Through this strategy the learner needs were established based on the discrepancy between what exists and what should exist.

The questionnaires when returned would then be statistically analyzed. The primary measure of needs was to be the ranking of criticality of questionnaire items. These findings were to be

corroborated by comparing them with the ranking gained from the phone interview; and, then finally, by comparison with the rankings of the mean difference of performance and importance questionnaire. By using the Spearman rank-order correlation coefficient, a test to check the correlation of the rankings, the results could be verified.

The report would then be presented with the findings which list a priority of students learner needs.

The Assessment Process

Introduction-

The first stage of the needs study began in May 1986. A planning session was held to establish the assessment questions as well as to establish sample to be selected. The needs assessment question to be answered was, "What are the greatest student learner needs," avoiding all concerns of administrative or institutional nature.

The role of technology in solving the student learner needs was also addressed.

The State Office of Education School and Community Development provided a selected group of key informants for the evaluators to use in gathering data. In addition to interviewing all of the state's forty superintendents, Drs. Don Richards and Mike Garbett provided lists of experts to be interviewed. Both lists were combined to obtain a final listing of 89 participants: 40 superintendents, 3 assistant superintendents, 17 local district

supervisors, 1 secondary principal, 6 middle school principals, 2 primary principals, 5 teachers, 3 teacher/school board association leaders, 11 State Office of Education Specialists, and 1 university educator.

The Telephone Survey-

The questionnaire created to gather information for the phone interviews is shown in Appendix B. A set of 6 people was selected from the key informant list as a pilot test group. The first three people were interviewed, and the interviewer discovered that the interview questions were incomplete. A revision was made to rectify the deficiencies. The second set of three persons was were interviewed using the modified questionnaire before proceeding with the full group.

Some people from the list had retired or changed jobs, which caused problems with the selected sample of experts. In all cases where a person changed jobs, the person presently filling the job was interviewed. In the process, the interviewer was able to update and correct the key informant list that would be used for the questionnaire.

The Survey-

The needs assessment specialist worked with the interviewer to create a survey instrument that would measure the greatest learner needs. The survey consisted of 33 items, developed from the phone survey. It was decided that in order to establish the gap between what is, and what should be, two questionnaires were used. One questionnaire asked the respondents to rate <u>performance</u> of state

schools on the basis of meeting the stated learner needs. The second instrument requested the sample to rate the value of importance of the student learner needs.

After the survey instrument was created, the assessment team sent the survey instrument to each of the six members of the test sample. Three days later the evaluators followed up with the test group to learn how respondents had dealt with the survey. All members responded: 3 had already sent the survey back, 2 had looked at it, and one had not viewed it.

After the preview with the test group and a review of the instrument by the project leader (who performed a role of quality assurance), the instrument received minor modifications and was prepared for mass mailing.

The team sent out 89 questionnaires. At the time of analysis, 68 had been returned, less two returned forms that were unusable, providing a net response rate of 74%.

Needs Assessment Results

In analyzing the data collected by the survey, four methods were used to triangulate the rankings of student learner needs.

-Phone survey-

The first ranking group consisted of the most frequently stated responses given by the respondents during the phone interviews. Seventeen responses were frequently repeated during the survey and ranked because of their universal identification.

Developing competence in writing was reported most often in the

phone interview as the greatest student learner need. Second most reported issue was development of reading skills to students age and grade level. Finally, development of mathematics skills was ranked third. Other phone rankings are listed in Appendix A, Table #2.

During the telephone survey, the interviewer gained insight into respondents' perceptions of technology and student learner needs. The sample group seemed polarized regarding technology use; one group taking a generally optimistic view toward technology with other group viewing the matter more pessimistically.

The first group believed that technology was a solution to current concerns regarding:

A. Class size when used with differentiated staffing programs.
B. Increased class offerings to small or rural schools.
C. More efficient education through teacher sharing.
D. Greater productivity and achievement through the use of outside sources.
E. The providing of gifted and talented programs.

The second group were concerned about:

A. The large capital expenditures on technology projects with few tangible results.
B. The lack of funds available for maintenance of the equipment.
C. The issue of poor preservice training of teachers in implementing technology projects.
D. The lack of present teacher interest in inservice programs designed to teach the use of technology.
E. The lack of student interaction with various technology forms (i.e. satellite broadcasts) and lack of good software (i.e. computer software).

Thirty percent of respondents stated that a major problem of technology implementation dealt with leadership at the state level and the lack of a clear systematic statewide program for utilization and implementation.

Most respondents (80%) stated that money was the biggest problem in the implementation of any technological innovation. A majority of people interviewed (58%) did not believe that technology was the answer to student learner needs or could provide solutions to many school system problems.

Another expressed concern was the quality of technological interventions. A number of the respondents (30%) stated that attempts to implement technology were not done well, and therefore were unsuccessful. (Note: Because of multiple answers to the questions in the phone interview percentages do not add to 100%)

A listing of the responses to the questions from the phone survey are contained in Appendix A table #1.

To summarize, one superintendent stated that "We haven't learned how to use technology, we are only scratching the surface." And another said, " In our implementation of technology, we are not really looking at the research in making decisions... more research must be done!"

Even though the focus of the phone survey was to gather information about learner needs from state wide experts, other information was gathered. When asked about the greatest concerns regarding the state educational system, the answers were virtually universal. State wide experts believed that money and budget cuts were the biggest problem facing the public schools. Class sizes and preservice training were other major concerns. From the standpoint of the needs assessment, these are "institutional," rather than "learner" needs. Such responses are mainly solutions, rather than

basic problems to be dealt with. Other issues are listed in Appendix A, Table #1.

-The questionnaire-

The written questionnaire requested the respondent to rate each item on performance or importance and then to choose the eight most critical needs for immediate attention. From this list, seventeen items were identified as immediate needs. Table #2 in the Appendix A lists the ranking of the items from the criticality ratings along with the rank set forth by the telephone interview.

The third analysis performed was a means difference test of the item's rating of performance from the mean rating of importance. (The mean difference of "what is" compared to "what should be.") A positive mean difference indicates a need. A negative mean difference or a zero mean dif erence implies that no needs exist, or possibly that more attention is being paid to the concern than is presently warranted. Twenty-five of the thirty-three survey needs had positive mean differences. One need had a zero mean difference, while seven had negative mean differences. Table #3 of Appendix A lists the mean difference and their rankings.

The fourth and final analysis was a Spearman rank correlation of the rankings obtained in the study. The 17 areas ranked by criticality were correlated with the 17 mean difference rankings from the questionnaire. The cutoff at 17 was chosen because (1) the top ranked items are most relevant to the study and (2) the number of tied ranks below that figure increased dramatically. For example, the ten items marked only once have tied ranks.

The Spearman Correlation coefficient obtained for criticality rank and mean difference rank was .5846 (a .05 critical value of r is .306). This correlation indicates a close relationship between the two measures, though certainly not a one-to-one correspondence.

Recommendations

After the analysis of the data collected and correlation studies, it would appear that fifteen student learner needs, ranked in order of criticality, merit attention by Utah technology projects. They are expressed as learner needs and are as follows;

1. Provide competence in writing skills, grammar, and spelling.
2. Develop skills in problem solving.
3. Develop thinking and analysis skills.
4. Develop skills in reading comprehension, performance at grade norm, etc.
5. Develop positive self esteem.
6. Build verbal communication skills in speech and interpersonal communication.
7. Build skills to transfer solutions to other aspects of life.
8. Develop analysis skills in mathematics.
9. Develop attitudes of productivity and dependability.
10. Develop positive attitudes toward the value of work.
11 Develop performance attitudes of self direction, self responsibility, and study skills.
12. Provide values education to include values of honesty, ethics, and fairness.
13. Instill attitudes of the ill effects of tobacco, alcohol, and harmful Drugs.
14. Provide for the special needs of the academically gifted and artistically talented students.

In the judgment of the needs assessment team, the levels of criticality established by the questionnaire are paramount for the

following reasons: (1) the response choices had been filtered through one cycle of oral interviews;(2) the measure is direct, with respondents indicating the eight most critical items; and (3) this measure incorporates the responses of all 66 respondents, where the "performance" and "Importance" measures obtained data from separate halves of the population.

At this point some caveats to the interpretation of the data are in order: (1) The population selected for the study was not drawn randomly, but rather pre-selected, first as superintendents and then others based upon past experience with technology. The assessment team can not state that the sample is truly representative of the state, either geographically or of various constituent groups. While an argument can be made that this sample is more knowledgeable and better informed than a random sample, leaving superintendents aside, one serious concern is that, by being selected by State Board of Education personnel, the group may be less critical of the State Board policies than a randomly selected group would have been. It was the decision of the assessment team to report findings for the total sample, rather than for superintendents separately from district supervisors, etc.

(2) Another concern of the assessment team was the pre-disposition toward solution by technology of problems encountered. The position of the assessment team is that needs at the learner level must be identified and documented and then questions of technology's appropriateness addressed. To the question, which needs are currently being met by technology?," the

answers from respondents were disappointing. Respondents were generally unwilling to say that specific needs were being me by technology, except in rare and isolated projects. As reported above, respondents to the telephone interview tended to polarize over technology, seeing it as bane or panacea. In neither case, however, is present use of technology seen as complete or adequate. Thus, the entire range of learner needs could be viewed as open to solution by technology, since none viewed as being currently met.

(3) The final concern regarding the study is the reflection of the state economic problems during the time period of the interview and survey processes. The climate of program cutting and budget balancing seemed to be the dominant influence in assessing needs. The emotion of the issues surrounding education is funding could affect some of the subject areas that fared so poorly in this study. Examples of areas that may have suffered are the arts, vocational programs, handicapped programs, etc.

Technology Recommendations

The following recommendations for technological interventions are made by the assessment team:

1. A major systematic program must developed for state wide implementation of technology in the schools. This plan should be based upon identified needs and should have consistent state support. Its results must be widely disseminated and funded adequately. It must involve teachers and administrators at the local level in its development and design.

2. Technological interventions that inhibit teacher-student and student-student interaction must be examined in the light of emerging technologies which enhance such interaction. A boring lecture presented over telecommunications or on a microcomputer is usually even more boring. But the right technology used well stimulates dialog and interchange.

3. Present technological interventions must deal with issues of convenience and scheduling at the local level. Particularly as these interventions cross district lines, attention to scheduling concerns is critical.

4. Preparation of teacher is paramount in the use of technology at any level in the public schools. Aggressive efforts in teacher training are required to effectively use the technology already in place in public schools.

5. Not all student needs can be satisfied by technology. Technology has the potential to relieve teachers loads of clerical and managerial tasks to allow more time for academic engagement. However, without close attention, the demands upon teachers may multiply-- for more detailed reports, etc-- thus allowing <u>less</u> time for one-on-one contact with students.

6. Joint programs of the universities, business and industry, and local school districts can assist technology reach its optimum potential use.

7. Based upon this assessment of needs, technological programs that address composition, problem solving skills, and analysis skills should be sought out and promoted.

8. Reading programs should be investigated for technological interventions due to reading's high priority in the elementary curriculum.

9. Technology must be made more accessible and more user-friendly for students and teachers alike.

In summary, we view the needs assessment as a worthwhile activity, particularly in view of the perceived range of options and degree of polarization currently evident regarding technology. We maintain that addressing the needs identified through this assessment will offer a range of solution options and a direction for future educational planning and programming.

Appendix A- Results

Table #1
Telephone Survey
Notable Responses

Responses that were obtained from the phone survey that were noteworthy are listed. Following the notations that were technology specific, are a listing of some of the greatest concerns that the sample group have regarding education in the State of Utah. (NOTE: concerns are listed only. No ranking is implied.)

1. Laserdiscs and telecommunication are not meeting all the needs originally envisioned. The state should be supporting more programs that use technology in the classroom.
2. Teacher needs and time demands are making it difficult to find time to use technology.
3. Telelectures as currently operated lack student-teacher interaction.
4. Technology frequently isn't used by districts due to its cost. Initial cost and maintenance are more then school budgets can handle.
5. The use of computers is only beginning to scratch the surface in any subject area. The teachers need to be better trained to use the technology.
6. The technology hasn't had much impact because the low numbers of hardware systems in the schools.
7. The money is not available to schools to buy the hardware necessary to provide service to all areas of the curriculum.
8. Technology is a tool. Let's keep that in perspective.
9. The technology is not advanced enough or refined enough to really assist a quality teacher to be better.
10. Technology costs a lot of time and money. We have to much to do already with less time to do it. More preservice training is needed.
11. Generally, we haven't even begun to use computers to their potential. If the computer could be used as the key in staffing patterns, the student/teacher ratio could be controlled, and thus better education would result.
12. The present curriculum needs an overhaul, and technology applications need to be better applied to satisfy real curriculum needs.
13. Students presently being exposed to technology effectively, are often the result of a teacher that has the technical background to provide it. Generally, teachers are not prepared to provide any technological instruction. Most students know more than the teachers.
14. There has been little or no real direction or leadership provided in the state in regards to technology.
15. Computer software for the most part is questionable in

quality. Programs range from bad to excellent. The range makes it difficult to use any for instruction.

16. Educational television has been costly and inconvenient for real school applications.

17. Technology has an inherent weakness. Start-up costs and maintenance force schools to put broken machines away because they can't afford to fix them.

18. Content areas broadcast by telecommunication are very limited, and are scheduled at the most inconvenient times.

19. We are not getting out of technology what we have invested in it. No one really knows the full potential or the hazards in order to make a real difference.

20. There is very little research that shows that technology makes a difference in learning.

21. Technology must be in the control of competent teachers and administrators.

22. Technology is developing faster then anyone has the ability to deal with it.

23. Correlating software with instruction is the biggest problem with technology interventions.

24. The human quality cannot be taken away from technology or they will never succeed in replacing the need for human contact.

25. We sometimes use technology, but never take the final step of total integration. The useful step to effective utilization is not taken by teachers because they feel that there is no advantages to it.

26. Technology is no substitute for a well trained and qualified teacher. It takes top teachers to even use technology.

27. The computer is not being used to its potential because there is too little computer skill and utilization knowledge among teachers.

28. We are not as responsive as we should be in a technological society to rapidly respond to the needs of students, community, and society.

29. Using one-way presentations in art is a weak sister to interaction and activity.

30. Hands on experiences are not happening in most of the technology programs.

Table #2
Ranking of Criticality for Written Questionnaire
in Comparison with Ranking by Telephone Interview

***-Frequency Tally on criticality
from Written Questionnaire

***	Rank	Student Learner Needs	Ranking by Phone Interview
42	1.	Provide competence in writing skills, grammar, and spelling.	1
31	2.	Develop skills in problem solving.	11
31		Develop thinking and analysis skills.	7
29	4.	Develop skills in reading comprehension, performance at grade norm, etc.	2
28	5.	Develop positive self esteem.	8
28		Build verbal communication skills in speech and interpersonal communication.	5
25	7.	Build skills to transfer solutions to other aspects of life.	12
23	8.	Develop analysis skills in mathematics.	3
20	9.	Develop attitudes of productivity and dependability.	17
19	10.	Develop positive attitudes toward the value of work.	15
19		Develop performance attitudes of self direction, self responsibility, and study skills.	4
18	12.	Provide values education to include values of honesty, ethics, and fairness.	13
18		Instill attitudes of the ill effects of tobacco, alcohol, and harmful Drugs.	14
17	14.	Provide for the special needs of the academically gifted and artistically talented students.	6
14	15.	Develop an understanding of the impact of technology in a technological society.	16
13	16.	Assist students in comprehending the free enterprise system and its significance to the individual in society.	9
8	20.	Provide enriched elementary school science experience with outside expertise or with increased teacher preparation.	10

Table #3
Mean Difference Rankings
of
Importance and Performance

Mean differences ranged from 1.00 to -.33. Only positive mean differences are considered for further analysis. However, the zero and negative mean difference needs proved interesting, possibly indicating that excessive attention is presently placed in these areas.

Mean Differ.	Rank	Student Learner Need
1.00	1	Develop thinking and analysis skills.
1.00		Build skills to transfer solutions to other
.94	3	Develop skills in problem solving.
.89	4	Provide competence in writing skills, grammar, and spelling.
.67	5	Promote knowledge of adequate nutrition to maintain health.
.66	6	Build verbal communication skills in speech and interpersonal communication.
.64	7	Develop computer literacy skills.
.57	8	Develop positive self esteem. aspects of life.
.55	9	Develop individual talents and abilities.
.54	10	Develop analysis skills in mathmatics.
.51	11	Instill attitudes of the ill effects of tobacco, alcohol, and harmful Drugs.
.49	12	Plan and create programs built upon student individuality and differences.
.49		Provide enriched elementary school science experience with outside expertise or with increased teacher preparation.
.48	14	Provide for the special needs of the academically gifted and artistically talented students.
.48		Develop performance attitues of self direction, self responsibility, and study skills.
.43	16	Develop an understanding of the impact of technology in a technological society
.43		Provide values education to include values of honesty, ethics, and fairness.
.36	18	Develop skills in reading comprehension, performance at grade norm, etc.
.31	19	Build understanding of a foreign culture.
.31		Promote young women's performance in math and sciences.
.30	21	Provide skills in understanding languages other than English. (Listening Comprehension)

.27	22	Assist students in comprehending the free enterprise system and its significance to the individual in society.
.25	23	Develop an appreciation of the visual and the performing arts.
.22	24	Demonstrate information retrieval skills.
.15	25	Develop attitudes of productivity and dependability.
.12	26	Promote adequate physical fitness and activity.
0.00	27	Develop skills in the visual arts.
-.02	28	Develop skills and talents in the performing arts.
-.18	29	Meet the special needs of the handicapped individual.
-.24	30	Develop social skills to get along with others in a family or group setting.
-.30	31	Provide fluency in a language other than English. (Speaking & Writing)
-.33	32	Develop positive attitudes toward the value of work.
-.33	33	Provide vocational programs for non-college bound student populations, specifically, drafting, automechanics, and industrial arts.

Appendix B- Instruments

Telephone Survey Instrument

Name_____ Call at a better time _____Day,
Date_____ Time_____ _____Date
Interviewer_____
code#_____ _____ Time
Project_____

Question #1

What do you believe is the greatest learner need in the public schools?

PROBES	"Learner Needs"
	Grade Level
	Special Needs
	Minimal Level
	Ideal Level

There are many technologies available to educators to meet many learner needs in instruction. Examples are; A.V. hardware and software, Computers, Telecommunications, Videotape, and others.

Question #2

In your opinion what major needs are not being met with technology?

PROBES	Define Technology
	Grade Levels
	Special Needs

Question #3

What other concerns do you have that we havn't discussed?

PROBES	Technology Programs
	Special Needs

Learner Needs- The gap between what is, and what should be in terms of student performance

Remember to explain followup letter and questionaire for them to fill out

Special Needs.
Gifted and Talented
Handicapped
Gender Realted concerns
Racial/Social/Economic

Technology- The Creative application of any body of tested knowledge, which may be expressed by a set of general principles, to educational purposes.

Questionnaire Instruments-Importance

code#_____

All of the following have been identified through our telephone interviews as pressing issues regarding learners. Please rank the following concerns on a scale of 1-5, one being low and five being high, according to the current level of <u>importance</u> of the concern for Utah Schools.

	Low High
English and Language Arts-	
1. Develop skills in reading comprehension, performance at grade norm, etc.	1..2..3..4..5
2. Provide competence in writing skills, grammar, and spelling.	1..2..3..4..5
3. Build verbal communication skills in speech and interpersonal communication.	1..2..3..4..5
Math and Science-	
4. Develop analysis skills in mathematics.	1..2..3..4..5
5. Promote young women's performance in math and sciences.	1..2..3..4..5
6. Provide enriched elementary school science experience with outside expertise or with increased teacher preparation.	1..2..3..4..5
Social Studies and Civics-	
7. Develop social skills to get along with others in a family or group setting.	1..2..3..4..5
8. Assist students in comprehending the free enterprise system and its significance to the individual in society.	1..2..3..4..5
Computers and Research skills-	
9. Demonstrate information retrieval skills.	1..2..3..4..5
10. Develop computer literacy skills.	1..2..3..4..5
11. Develop an understanding of the impact of technology in a technological society	1..2..3..4..5
Arts, Drama, and Music	
12. Develop an appreciation of the visual and the performing arts.	1..2..3..4..5
13. Develop skills in the visual arts.	1..2..3..4..5
14. Develop skills and talents in the performing arts.	1..2..3..4..5
Foreign Language-	
15. Provide skills in understanding languages other than English. (Listening Comprehension)	1..2..3..4..5
16. Provide fluency in a language other than	1..2..3..4..5

English. (Speaking & Writing)

17. Build understanding of a foreign culture. 1..2..3..4..5

Physical Education, Health, and Recreation-

18. Instill attitudes of the ill effects of tobacco, alcohol, and harmful Drugs 1..2..3..4..5
19. Promote knowledge of adequate nutrition to maintain health. 1..2..3..4..5
20. Promote adequate physical fitness and activity. 1..2..3..4..5

Vocational and Business Education-

21. Develop positive attitudes toward the value of work. 1..2..3..4..5
22. Provide vocational programs for non-college bound student populations, specifically, drafting, automechanics, and industrial arts. 1..2..3..4..5

Special needs education-

23. Provide for the special needs of the academically gifted and artistically talented students. 1..2..3..4..5
24. Meet the special needs of the handicapped individual. 1..2..3..4..5

Self Attitudinal Needs-

25. Develop positive self esteem. 1..2..3..4..5
26. Develop attitudes of productivity and dependability. 1..2..3..4..5
27. Develop performance attitudes of self direction, self responsibility, and study skills. 1..2..3..4..5
28. Develop individual talents and abilities 1..2..3..4..5
29 Plan and create programs built upon student individuality and differences. 1..2..3..4..5
30. Provide values education to include values of honesty, ethics, and fairness. 1..2..3..4..5

Critical Thinking Skills-

31. Develop skills in problem solving. 1..2..3..4..5
32. Develop thinking and analysis skills. 1..2..3..4..5
33. Build skills to transfer solutions to other aspects of life. 1..2..3..4..5

Now go back over the list and select eight (8) critical needs that you believe should be dealt with <u>immediately.</u> Mark them by circling the numbers of the item.

List any additional comments or suggestions you may have in the space provided below, and on the back of the page if necessary.

Questionnaire Instruments-Performance

code#_____

All of the following have been identified through our telephone interviews as pressing issues regarding learners. Please rank the following concerns on a scale of 1-5, one being low and five being high, according to the current level of <u>performance</u> of Utah Schools.

	Low High
English and Language Arts-	
1. Develop skills in reading comprehension, performance at grade norm, etc.	1..2..3..4..5
2. Provide competence in writing skills, grammar, and spelling.	1..2..3..4..5
3. Build verbal communication skills in speech and interpersonal communication.	1..2..3..4..5
Math and Science-	
4. Develop analysis skills in mathematics.	1..2..3..4..5
5. Promote young women's performance in math and sciences.	1..2..3..4..5
6. Provide enriched elementary school science experience with outside expertise or with increased teacher preparation.	1..2..3..4..5
Social Studies and Civics-	
7. Develop social skills to get along with others in a family or group setting.	1..2..3..4..5
8. Assist students in comprehending the free enterprise system and its significance to the individual in society.	1..2..3..4..5
Computers and Research skills-	
9. Demonstrate information retrieval skills.	1..2..3..4..5
10. Develop computer literacy skills.	1..2..3..4..5
11. Develop an understanding of the impact of technology in a technological society	1..2..3..4..5
Arts, Drama, and Music	
12. Develop an appreciation of the visual and the performing arts.	1..2..3..4..5
13. Develop skills in the visual arts.	1..2..3..4..5
14. Develop skills and talents in the performing arts.	1..2..3..4..5
Foreign Language-	
15. Provide skills in understanding languages other than English. (Listening Comprehension)	1..2..3..4..5
16. Provide fluency in a language other than	1..2..3..4..5

English. (Speaking & Writing)

17. Build understanding of a foreign culture. 1..2..3..4..5

Physical Education, Health, and Recreation-

18. Instill attitudes of the ill effects of tobacco, alcohol, and harmful Drugs 1..2..3..4..5
19. Promote knowledge of adequate nutrition to maintain health. 1..2..3..4..5
20. Promote adequate physical fitness and activity. 1..2..3..4..5

Vocational and Business Education-

21. Develop positive attitudes toward the value of work. 1..2..3..4..5
22. Provide vocational programs for non-college bound student populations, specifically, drafting, automechanics, and industrial arts. 1..2..3..4..5

Special needs education-

23. Provide for the special needs of the academically gifted and artistically talented students. 1..2..3..4..5
24. Meet the special needs of the handicapped individual. 1..2..3..4..5

Self Attitudinal Needs-

25. Develop positive self esteem. 1..2..3..4..5
26. Develop attitudes of productivity and dependability. 1..2..3..4..5
27. Develop performance attitudes of self direction, self responsibility, and study skills. 1..2..3..4..5
28. Develop individual talents and abilities 1..2..3..4..5
29 Plan and create programs built upon student individuality and differences. 1..2..3..4..5
30. Provide values education to include values of honesty, ethics, and fairness. 1..2..3..4..5

Critical Thinking Skills-

31. Develop skills in problem solving. 1..2..3..4..5
32. Develop thinking and analysis skills. 1..2..3..4..5
33. Build skills to transfer solutions to other aspects of life. 1..2..3..4..5

Now go back over the list and select eight (8) critical needs that you believe should be dealt with <u>immediately.</u> Mark them by circling the numbers of the item.

List any additional comments or suggestions you may have in the space provided below, and on the back of the page if necessary.

Table #4
Questionnaire
Notable Remarks

The following remarks were made by Key informants on the survey instruments that may be of interest to the study.

1. 20 years of research has shown that the study of grammar doesn't improve writing. The two should not be confused, meshed or linked as one important need.
2. Positive family strokes and love are important needs for students.
3. Utah schools lack leadership which leads to excellence. The system is designed to control, manage, and resist change. Staff development, professional excellence and risk taking are not rewarded. Rigor is lacking. I appreciate the major headings (of your questionnaire), but those items listed under each major heading are very subjective and to take each major heading or sub-objective separately is really unfair.

(A better listing would include:) Money, leadership, management, instructional competency, educational training, human skills, staffing patterns, use of resources, availability of resources, etc. etc.

These items are affecting the "performance" of Utah's schools. The "what" balance is pretty good for the cross section of kids in our schools. The "how," "when," "why," "where," etc. are a primary source of excellence which impact learning and school performance.